

Field Report

Don Edwards San Francisco Bay National Wildlife Refuge

■ 1.0 Summary

The Don Edwards San Francisco Bay National Wildlife Refuge (NWR) is a natural habitat refuge surrounded by uplands, marshes, salt ponds, and a freshwater tidal slough. It is the nation's largest wildlife refuge contained within the boundary of a large urban area (in this case, the San Francisco Bay Area). The Refuge is a primary habitat for endangered California clapper rail and salt marsh harvest mouse which are only found in the San Francisco Bay and is a key wintering area for migration water fowl and shore birds. The Refuge offers the following amenities to the public:

- A place to learn about the bay environment through exhibits, interpretive environmental education programs;
- A refuge to observe and photograph wildlife; and
- A recreational area to hike, hunt, fish, and enjoy some precious natural habitats in the heart of the San Francisco Bay Area.

The Refuge has recently acquired additional acres of land in Bair Island, 900 acres of which will be owned by the Fish and Wildlife Service and 1,900 acres by California State Fish and Game. Bair Island constitutes the single most significant addition to the refuge and currently has the highest level of visitor-day use for the entire refuge. Day users include hikers, joggers, dog walkers, and photographers. Bair Island is the largest exotic tidal wetland in the San Francisco Bay Estuarine System.

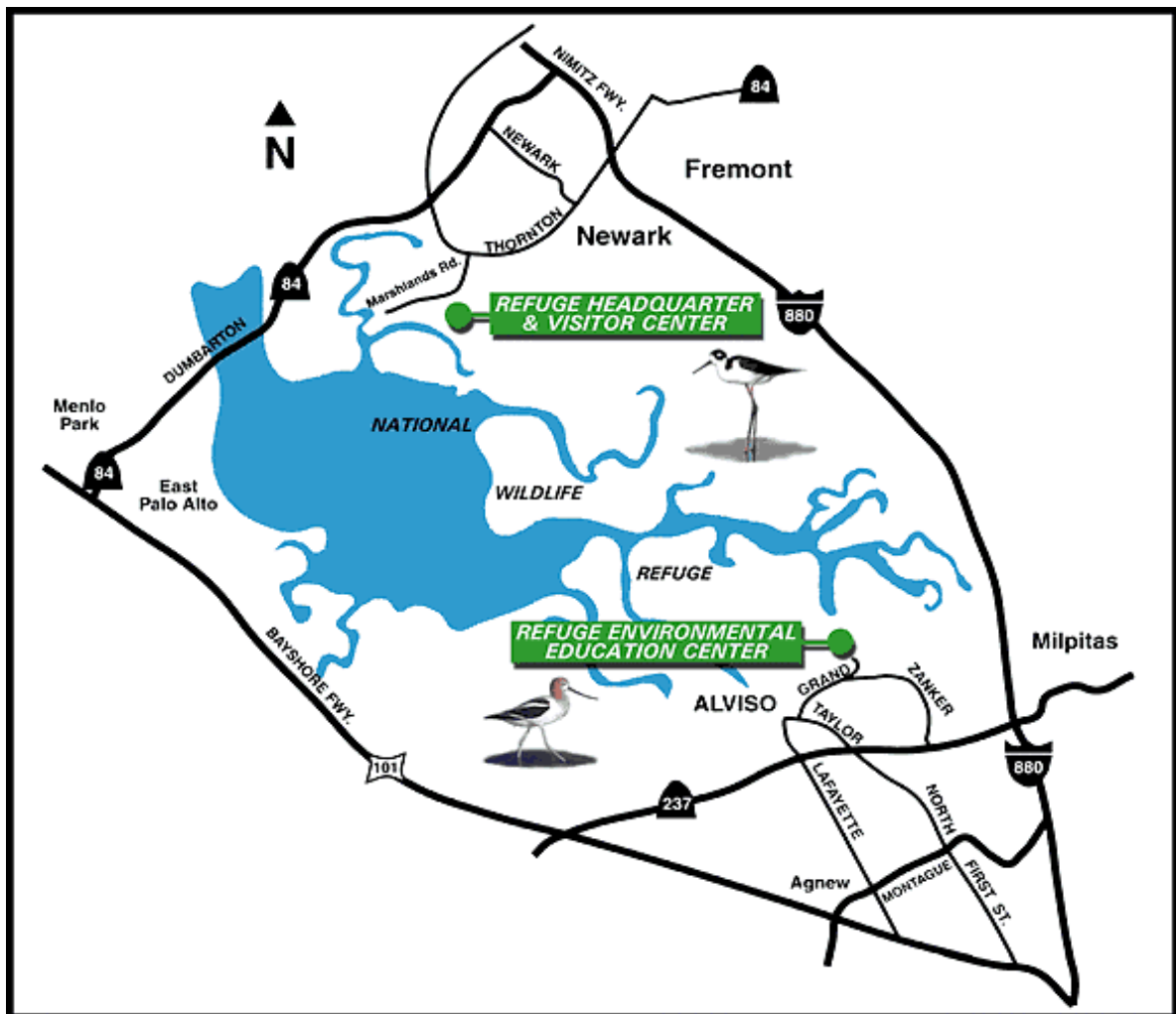
Currently, there is no transit access into the Refuge. Most visitors drive their automobiles and park at the Visitor Center parking lot, the Environmental Education Center (EEC) parking lot, or the California Department of Transportation (Caltrans) parking area at Bair Island. There are no parking shortages at the lots. The Refuge also operates a one-vehicle demand-response van shuttle that takes fishermen from the Visitor Center entrance to the fishing pier three miles west on Marshlands Road when the road is closed to protect endangered species. Due to limited demand and seasonal usage, there are no plans to upgrade or expand the service. Because of low levels of visitation, the refuge has relatively low need for implementation of current as well as future Alternative Transportation Systems (ATS). Dispersed activity areas within the refuge, as well as a ban on all motorized vehicles on refuge roadways (designed to protect ecologically sensitive areas), make any form of motorized transit system infeasible.

■ 2.0 Background Information

2.1 Location

The Don Edwards NWR is located at the southern tip of the San Francisco Bay. As shown in Figure 1, the Refuge is located south of Highway 84, except Bair Island, which is located north of Highway 84 and east of Highway 101. The Refuge is surrounded by several cities – Fremont, Newark and Milpitas to the east, Alviso and Sunnyvale to the south, and Redwood City and East Palo Alto to the west. The Visitor Center, located near the Dumbarton Bridge toll plaza in Fremont, is located on a hillside overlooking miles of salt marsh, tidal sloughs, mudflats, and salt ponds. The EEC is located at the southeastern part of the Refuge in Alviso, an environmental portion of the City of San Jose.

Figure 1. Location of the Don Edwards San Francisco Bay NWR



2.2 Administration and Classification

The Refuge is part of the San Francisco Bay NWR complex located in the Fremont headquarters. It is under the jurisdiction of the of the Department of Interior's USFWS. Six additional wildlife refuges – San Pablo Bay NWR, Antioch Dunes NWR, Salinas River NWR, Elliot Slough NWR, Marin Islands NWR, and Farallon NWR – are also managed by USFWS from the Fremont headquarters.

2.3 Physical Description

The Refuge boundary contains approximately 21,500 acres. The Visitor Center and refuge headquarters located near the northeastern entrance is one of the major access points to the refuge. Bicycle and hiking trails enter the refuge with trailheads located at the Visitor Center, the Alviso entrance, and Bair Island and Coyote Hills Regional Park located north of the Visitor Center.

Uplands, marshes, salt ponds, and a freshwater tidal slough surround the EEC at the southwestern end of the Refuge. The EEC building, designed for education, contains two classrooms, an auditorium, and an enclosed observation tower. Trails and a boardwalk through the seasonal wetland habitat provide easy access for visitors to see and explore the natural wonders of the South Bay. The Refuge has recently acquired additional land in Bair Island adjacent to Highway 101 in Redwood City. It is comprised of three islands, Outer, Middle and Inner, containing a total area of about 3,200 acres. Outer Bair Island and Middle Bair Island are sheltered from urban intrusion by wide and deep tidal channels and are thus extremely valuable as sensitive wildlife habitat areas. Inner Bair is easily accessible to the public and is presently very popular with joggers and hikers. Local residents frequently visit the trails around the Inner Bair Island salt ponds. Without needing a fishing license, visitors are also allowed to fish at the Dumbarton piers.

Tidelands Trail to Salt Marshes



2.4 Mission and Goals of the Wildlife Refuge

Founded in 1972 and administered by the U.S. Fish and Wildlife Service, the Don Edwards NWR exists to preserve and enhance the wildlife habitat in the South San Francisco Bay. Its mission is to protect endangered and threatened species, to protect migratory birds, preserve and enhance significant wildlife habitat in South San Francisco Bay, and to provide opportunities for wildlife-oriented recreation and nature study.

2.5 Visitation Levels and Visitor Profile

The estimated number of annual visitors is 300,000 persons. Visitation is heaviest on the weekends and varies throughout the year according to wildlife migration schedules. The refuge is primarily a day-use facility, with occasional overnight stays during the summer for children participating in Environmental Education activities. Visitation is lowest during the winter between December and February. During the remainder of the year, visitation averages around 20,000 visitors per month.

Time-of-day use tends to be heaviest in the morning and in the evening during the week-day, corresponding to before and after work schedules of joggers, hikers, and dog walkers. Most visitors like to jog, bike, take hikes or walk their dogs around the many trails. Seasonal fishermen and bird hunters also patronize the refuge. Once a year, the fireworks display near Redwood City draws large crowds to the western boundary of the refuge near Inner Bair Island. At such an event, parking is often a problem as visitors park on East Bayshore Road because of a limited number of parking spaces on the site.

3.0 Existing Conditions, Issues and Concerns

3.1 Transportation Conditions, Issues and Concerns

The Refuge contains several miles of hiking trails. The most popular trails include the Tidelands Trail and Newark Slough Trail at the Visitor Center, the Bair Island Trail, and the New Chicaho Marsh and Alviso Slough Trail at the EEC. The Visitor Center trails connect to trails in Coyote Hills Regional Park. Some bicyclists (including some commuters) use portions of the trail networks to Marshlands Road to travel across Dumbarton Bridge. However, some trails are periodically closed due to levee maintenance.

To protect ecologically sensitive areas, all motorized vehicles are prohibited from using refuge trails and roadways. Parking is available at the Visitor Center and at the EEC. There are no parking shortages at the two parking lots. However, plans are underway to realign the Visitor Center access road and reconfigure the parking lot to accommodate school bus access and turn radii. There are also plans to pave the EEC access road due to poor existing pavement conditions. Currently, there is no public transit access into the refuge. Due to the environmental and ecological sensitivity of the site, the refuge has rejected any plans to provide ferry service access to other Bay Area locations.

Visitor Center Parking Lot



View of Visitor Center from Parking Lot



The Refuge has identified the need to provide more information about the amenities of the site at the parking lot level. Currently, visitors arriving at the main entrance need to walk a flight of stairs to the Visitor Center on the top of a hill for information about the facility. Plans are underway to put an information kiosk near the entrance of the parking lot to intercept arriving visitors.

The City of Newark also has plans to widen the main arterial (Thornton Avenue) that leads into the refuge from two lanes to four lanes. The City has argued that this action is likely to be required to accommodate future traffic growth in the area. Currently, the Sun Microsystems campus main access road (Gateway Blvd.) intersects with Thornton Ave. Several planned developments will be built to the south of the refuge entrance road (Marshlands Road). The Refuge has expressed concern that the road-widening project would directly impact the wildlife habitat. Other areas of concern are parking lot and transportation access issues for the Bair Island site. The Inner Bair Island site is of special concern because of a narrow blind-curve at Whipple Avenue and East Bayshore Road. Visitors often park their cars on the road near this intersection, posing a safety issue. Furthermore, the intersection is only a few hundred feet from an on-ramp to U.S. 101 northbound.

During special events such as the Redwood City fireworks display, this intersection and segment of East Bayshore Road is especially congested. Caltrans also owns a small parking area adjacent to the intersection that is frequently used by local visitors of Bair Island. Caltrans has plans to close the current parking facility. In addition, future plans to develop a housing subdivision approximately one-half mile down East Bayshore Road include the construction of a parking lot for Bair Island activities and special events. This new parking lot will provide ample, save parking for visitors to Bair Island.

3.2 Community Development Conditions, Issues and Concerns

The Refuge has had significant coordination with the surrounding cities in terms of community development. Newark and Fremont are the gateway communities to the refuge. The Refuge reaches out to children in the surrounding communities through its extensive environmental education program, including the Summer Day Camp and field trip programs to the EEC.

3.3 Natural or Cultural Resource Conditions, Issues and Concerns

The preservation of the wildlife habitat is the primary concern of the refuge, especially when it comes to road improvements such as realignment or re-pavement. Asbestos cleanup along the access road to the EEC is high on the Refuge's agenda. The refuge is also conducting an aggressive campaign to acquire restorable wetlands and to save the remaining historic wetlands in the San Francisco Bay.

3.4 Recreation Conditions, Issues and Concerns

A balance between recreational activity (hunting, fishing) and wildlife preservation is a primary goal to help maintain the environmental and ecological balance of the refuge. The Refuge is also working hard to assure that the needs of hunters and other recreational users can be accommodated. A lack of boating ramps have made portions of the Refuge difficult to access by boat.

■ 4.0 Planning and Coordination

4.1 Unit Plans

A comprehensive refuge management plan is scheduled to be completed in 2005. There are no existing management plans for the Refuge. The Bair Island Restoration and Management Plan is scheduled to be completed in 2001.

4.2 Public and Agency Coordination

There are no current agency coordination plans or processes in place between the Refuge and other public agencies about refuge-related transportation issues.

■ 5.0 Assessment of Need

5.1 Magnitude of Need

Since typical weekday and weekend visitor usage is currently and projected in the future to be low and widely distributed among the over 20,000 acres of the Refuge, there will be little need for ATS. Currently, a one-vehicle demand-response van shuttle takes fishermen from the Visitor Center entrance to the fishing pier three miles west on Marshlands Road. The service operates sporadically, based on demand, several times a week between May and the end of August. The van seats eight passengers with a small tow trailer for

storage of gear and equipment. The Refuge maintains and operates the van service. Due to limited demand and seasonal usage, there are no plans to upgrade or expand the service.

Gate to Pier Shuttle with Shuttle Van in the Background



5.2 Feasible Alternatives

A limited number of visitors, dispersed visitor activities within the refuge, restrictions of all motorized vehicles on most refuge roadways and the mandate to protect ecologically sensitive areas reduce the need for implementation of ATS.

■ 6.0 Bibliography

Refuge Fact Sheet, Don Edwards San Francisco Bay National Wildlife Refuge.

City of Newark. *Draft Environmental Impact Report, Area Two Specific Plan*. City of Newark, May 1999.

Jerry Haag. *Final Environmental Impact Report, Area Two Specific Plan*. City of Newark, July 1999.

■ 7.0 Persons Interviewed

Clyde Morris, Refuge Manager, Don Edwards San Francisco Bay National Wildlife Refuge